

POWER UP YOUR POWER PLATFORM DEVELOPMENT WITH POWER AUTOMATE



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NATHALIE LEENDERS & HUGO BERNIER

WITH THE HELP FROM SOME MUPPET FRIENDS



**POWER
CONFERENCE**

Partners

Thank you for making this possible 



manica[®]



KONICA MINOLTA



**Data
Brothers**

PROMISE
PROMISE GROUP

MULTIMA
SOFTWARE ATELIER

NETWORG

 TD SYNNEX

 **GOPAS[®]**

WHO ARE WE?

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Nathalie Leenders
Power Platform Consultant
MVP Business Applications



WHO ARE WE?

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Hugo Bernier
World's laziest developer
PNP M365 Community team





WHO ARE YOU? + : °

**WHAT IS YOUR POWER
AUTOMATE EXPERIENCE
LEVEL?**



Game summary

[View full report](#)[Find a new kahoot](#)[Play again](#)[View summary](#)[Get feedback](#)

Thanks for participating!

Play again and revisit key talking points.

Lunch 11:30
Coffee break: 14:00



AGENDA

Theory for each product

Exercises

Live demos

Muppets!



INTRODUCTION TO OUR THEME

Welcome to the Muppet Power Automate Show!



PRE-REQS NEEDED FOR THIS WORKSHOP



Sign up for a free Power Automate trial license

Only if you don't already have an active license



Download the solution at <https://github.com/Nathalie-Leenders/trainingmaterial-powerautomateworkshop>



If you don't have a trial license, or are unable to get one, raise your hand. We'll have a demo account for you.

MUPPET POWER AUTOMATE SHOW

Welcome to the Muppet Show Automation Adventure!

In this series of exercises, you will help Kermit the Frog, Miss Piggy, Fozzie Bear, and the rest of the Muppet gang solve a series of problems using Power Automate and PowerApps.

The goal is to streamline their backstage operations and ensure the show runs smoothly.



THE STORY

The Muppet Show is facing a series of backstage challenges that are causing delays and confusion. Kermit the Frog, the show's director, has decided to use the power of automation to solve these problems.

With the help of Power Automate and PowerApps, you will assist the Muppets in creating automated workflows and interactive apps to keep everything on track.



THE PROBLEM

The Muppet Show's backstage operations are chaotic.

Props are misplaced, scripts are lost, and communication between the cast and crew is disorganized.

Kermit needs a way to automate these processes to ensure that everyone knows what to do and when to do it.





DEMO TIME

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What is the Power Platform?



Microsoft Power Platform



Power BI
Business analytics



Power Apps
Application development



Power Automate
Process automation



Copilot Studio
Chat bots with AI



Power Pages
External facing websites



Power FX



AI Builder



Dataverse

Power Automate

Cloud flows



CLOUD FLOW TYPES



Automated Flow: Will only run on a 'trigger'

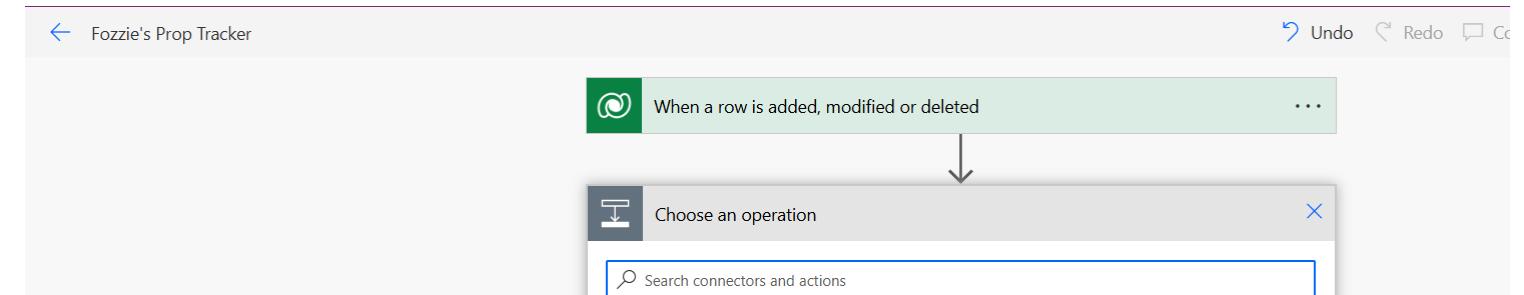


Instant Flow: Runs with the press of a button



Scheduled Flow: Scheduled per hour, day, week etc

TRIGGER EXAMPLES



1. When a new item is submitted (SharePoint)
2. Input from a Email sent with specific keywords
3. If it meets the 'trigger', the flow is started.

TRIGGER EXAMPLES

The screenshot shows the Microsoft Power Automate interface for creating a new flow. At the top, there's a header bar with a back arrow labeled "Fozzie's Prop Tracker", a search icon, and buttons for "Undo" and "Redo". Below the header is a main area where a trigger is selected. A green card displays the trigger icon (a person icon) and the text "When a row is added, modified or deleted". To the right of this card is a three-dot menu icon. A large downward-pointing arrow indicates the flow of the trigger selection process. Below the trigger card is a modal window titled "Choose an operation". This window has a close button (X) in the top right corner. Inside the modal, there's a search bar with the placeholder text "Search connectors and actions".

TRIGGER CONDITIONS

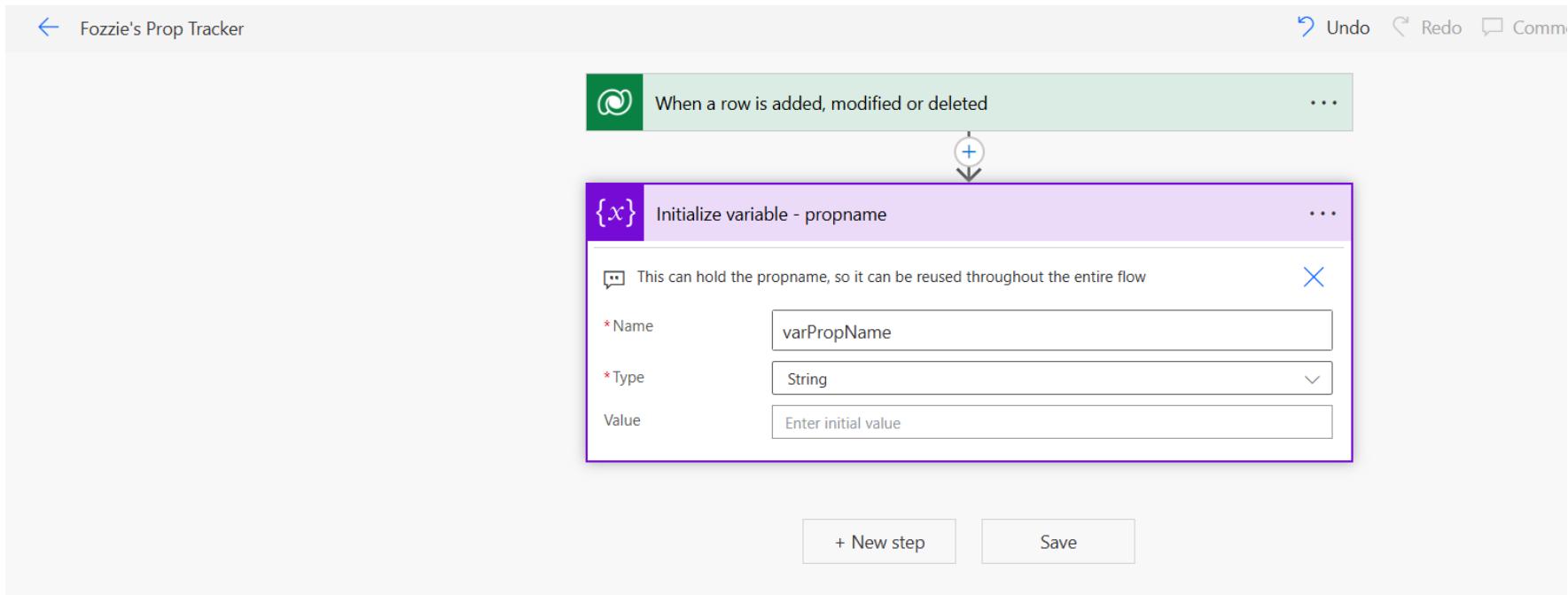
When a new
item is
submitted
(SharePoint)

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'status' equals
'submitted'

ACTIONS

What do you want done?



ACTIONS

The screenshot shows the Microsoft Power Automate flow editor interface. At the top, there is a green header bar with the text "When a row is added, modified or deleted" and a "..." button. Below this is a purple step card titled "Initialize variable - propname". The card contains the following fields:

- Name:** varPropName
- Type:** String
- Value:** Enter initial value

Below the step card, there are two buttons: "+ New step" and "Save". In the top right corner of the editor window, there are "Undo" and "Redo" buttons.

VARIABLES

Boolean

- Yes or No value

Integer

- Whole Numbers

Float

- Decimal numbers

String

- Text

Object

- Hold objects

Array

- Full array of data such as JSON data

VARIABLES

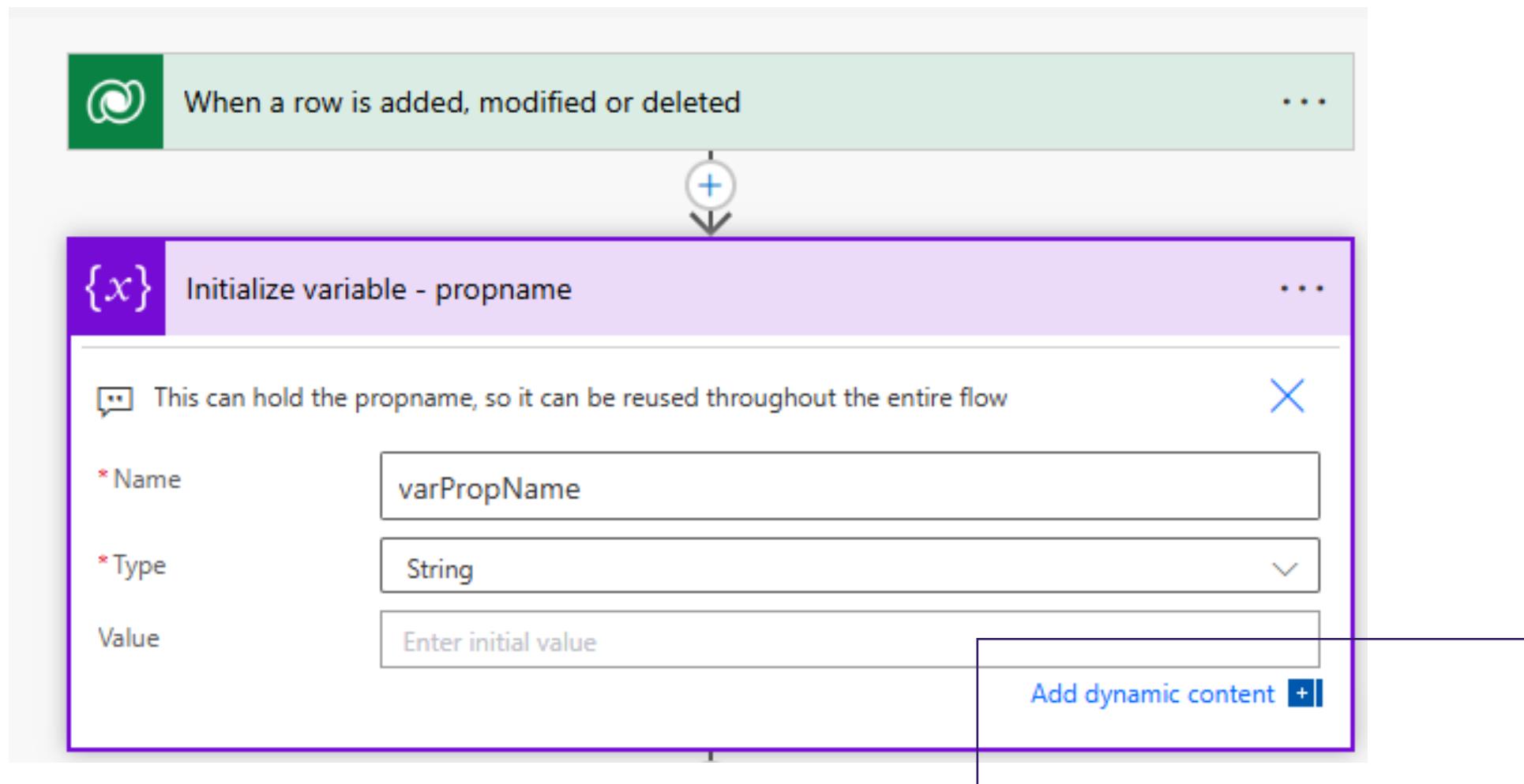
1

You need to initialize a variable first, you can only do that at the top of your flow.

2

After this, you can set the variable

DYNAMIC CONTENT



Click on Add dynamic content if it didn't already open. To close, click outside of it.



DYNAMIC CONTENT

Any data that comes from an action, can be used as dynamic content.

You may need to do a data operation, or Parse JSON (more in the demo) to get the information you need.

Add dynamic content from the apps and connectors used in this flow. Hide

Dynamic content

Expression

Search dynamic content

When a row is added, modified or deleted

@ Location

@ Owning Business Unit (Table Name)

Unique identifier for the business unit that owns the rec...

@ Owning Business Unit (Type)

Unique identifier for the business unit that owns the rec...

@ Owning Business Unit (Value)

Unique identifier for the business unit that owns the rec...

@ Prop Name

@ Created By (Delegate) (Table Name)

Unique identifier of the delegate user who created the r...

DYNAMIC CONTENT- KNOWN ISSUE

Scenario:

You have an action in your flow, for example a Teams adaptive card, and want to use the output somewhere.

Whatever you try and do it won't show.

DYNAMIC CONTENT- KNOWN ISSUE

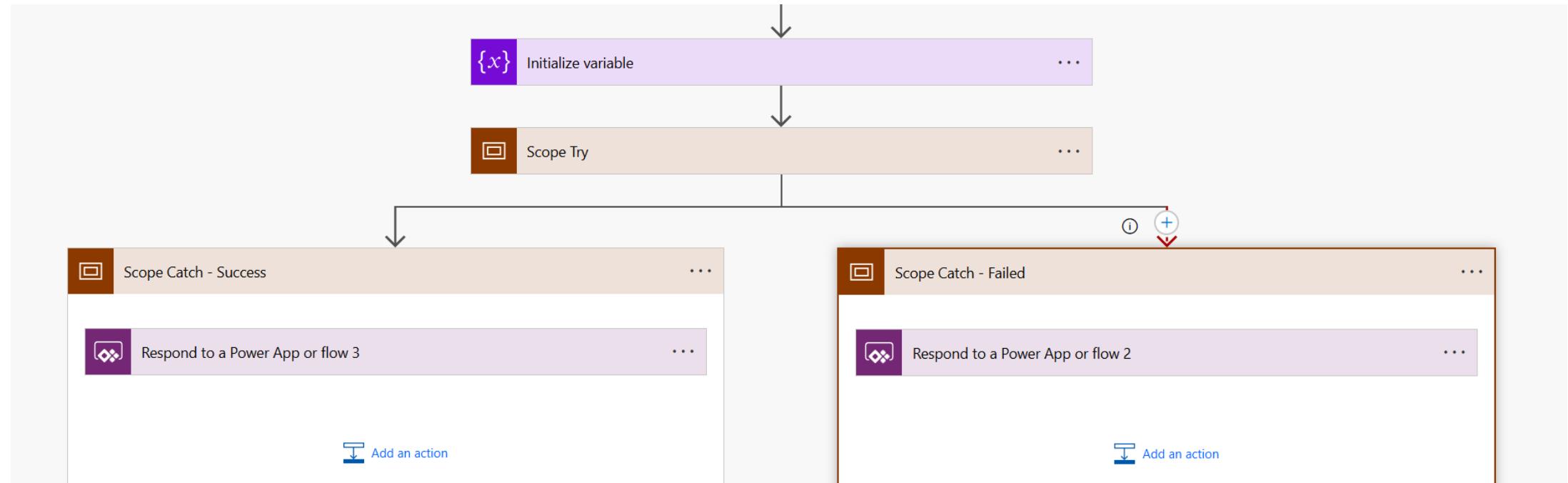
Fix

Remove the dynamic content from your card;

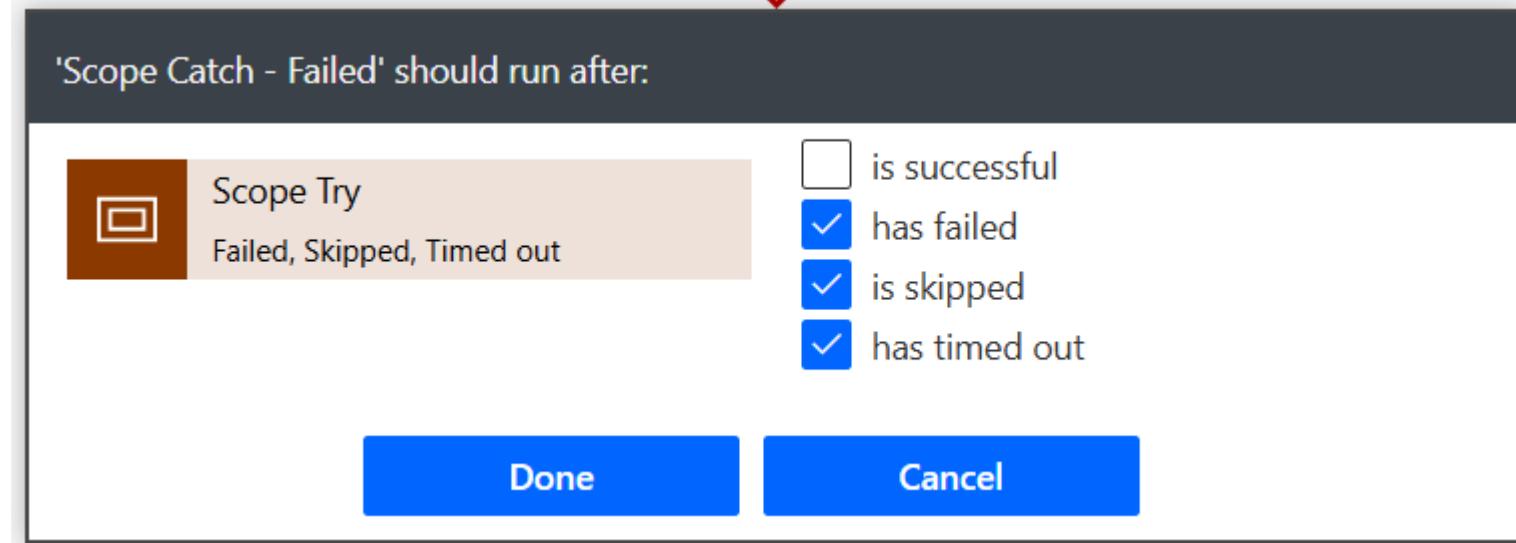
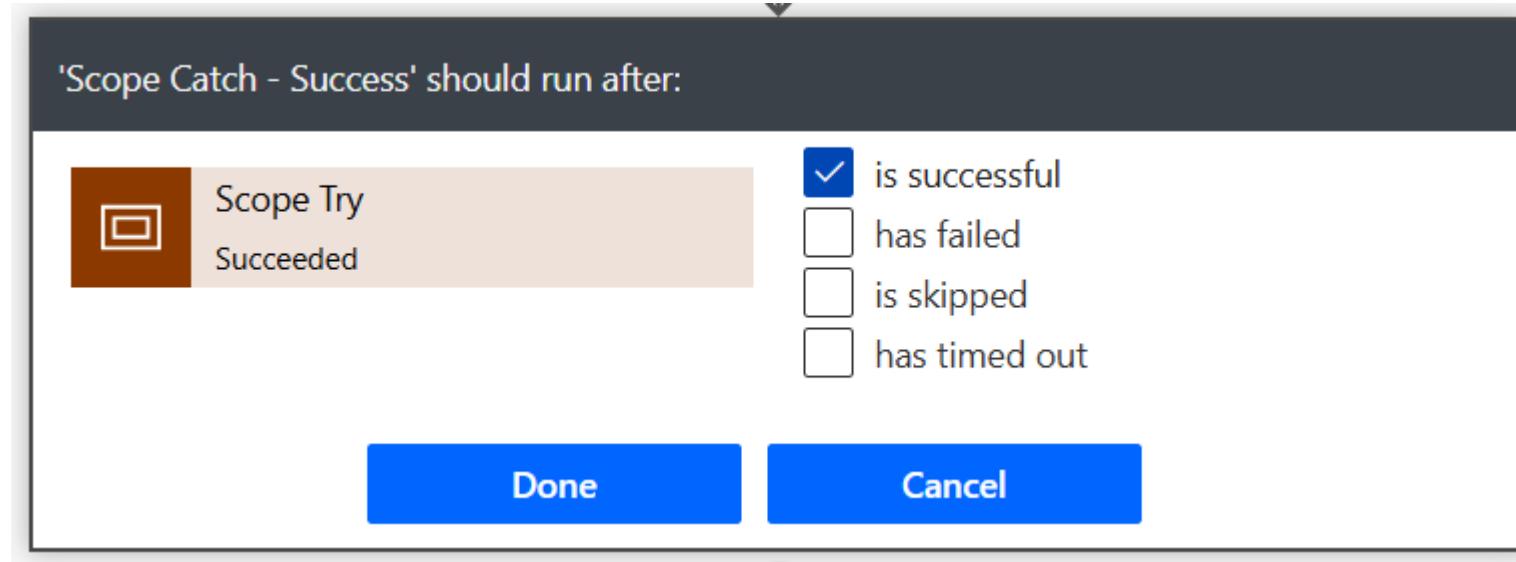
It will show!



SCOPE TRY/CATCH (ERROR HANDLING)



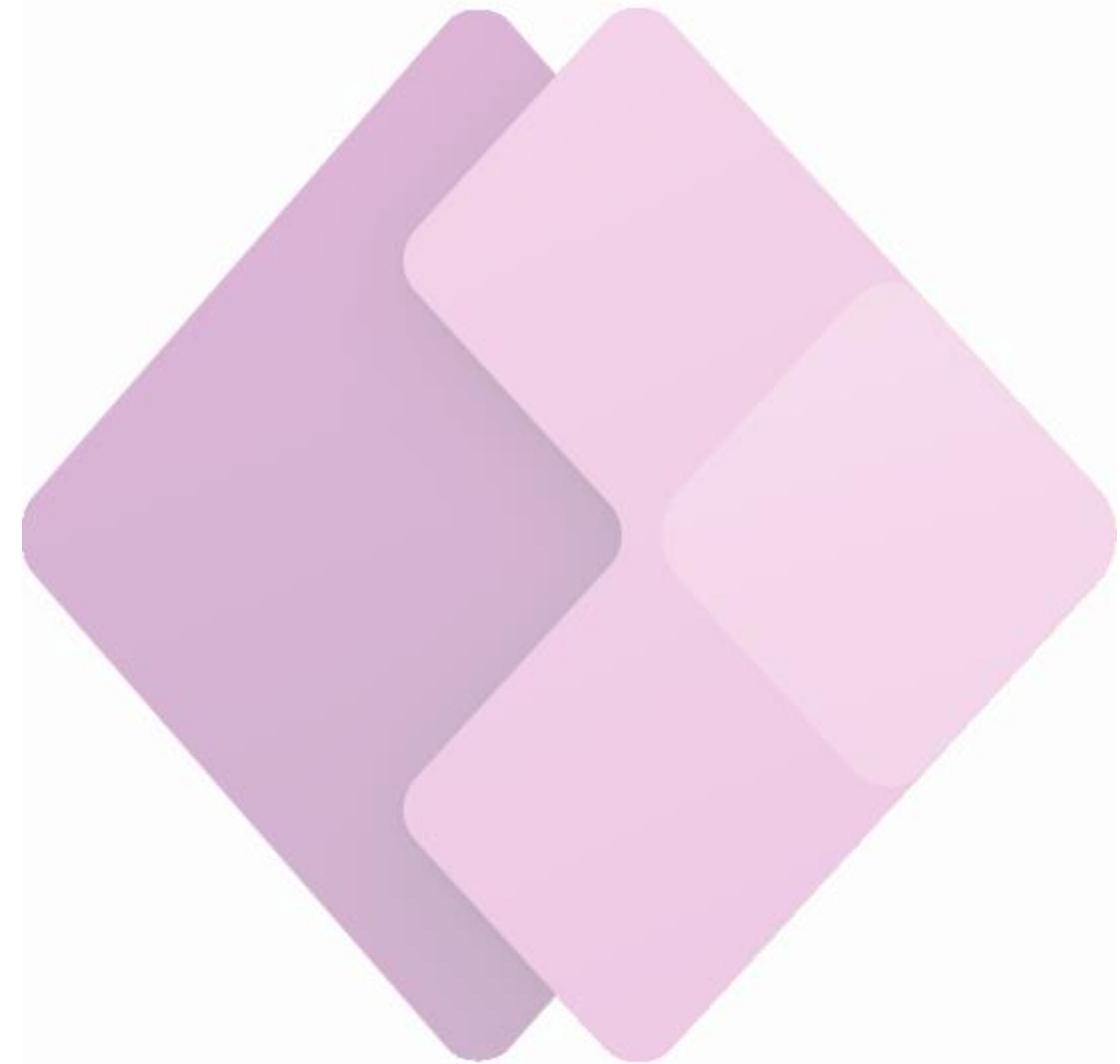
CONFIGURE RUN AFTER



REAL LIFE TIPS (READ STRUGGLES)

- Don't modify your step name if you have other steps dependent on it
- If you cannot find your dynamic content, remove fields from your action and try again
- The new designer can be buggy.
- If you open from make.powerautomate.com, it will open by default in the new designer. From make.powerapps.com, it defaults in the old designer.

Demo



Exercises for Power Automate - The basics

Exercise 1.1

Actions, Triggers, Variables, and Data Operations

Learning Objectives: Learn how to create a Power Automate flow that uses actions, triggers, variables, and data operations, all with a fun Muppets theme!

Estimated Time:

Exercise 1.2

Using a PowerApps Trigger

Learning Objectives: In this exercise, you will learn how to use a PowerApps trigger to get input and output from a button in a Canvas app. This exercise should take approximately 45 minutes to complete.

Estimated Time:

Exercise 1.3

Preparing a Canvas App (Muppets Themed)

Learning Objectives: In this exercise, you will create a Muppets-themed Canvas App with a button to start a flow.

Estimated Time:

Exercises for Power Automate - The basics

Exercise 1.1

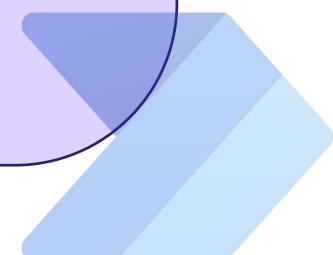
Actions, Triggers, Variables, and Data Operations

Learning Objectives: Learn how to create a Power Automate flow that uses actions, triggers, variables, and data operations, all with a fun Muppets theme!

Estimated Time:

Scenario: Fozzie Bear keeps losing his comedy props.

Create a flow that automatically tracks and logs the location of each prop whenever it is moved.



Exercises for Power Automate - The basics



Scenario: Miss Piggy needs a way to quickly send messages to the crew.

Create a flow that can work with a button that sends a message to the crew's chat group. And returns information to the app.

Exercise 1.2

Using a PowerApps Trigger

Learning Objectives: In this exercise, you will learn how to use a PowerApps trigger to get input and output from a button in a Canvas app.

Estimated Time: 30 minutes

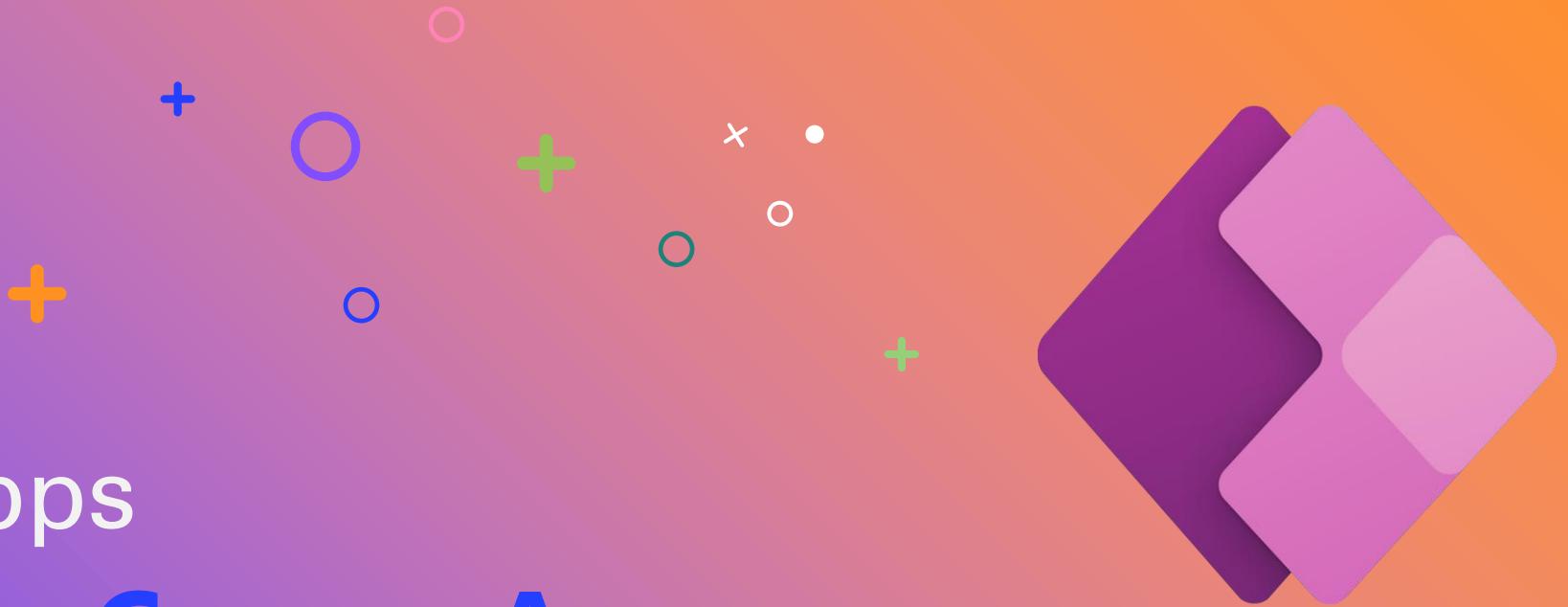


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Power Apps

Canvas Apps



WHAT ARE THE BENEFITS OF CANVAS APPS?

- You don't need a premium license
- Connect to all 1300+ connectors or custom connectors
- You can make easy Graph API HTTP calls
- Canvas apps can be embedded in Microsoft Teams, SharePoint, and Power BI
- Full creative freedom in the layout
- You can share with external people (B2B guest acc



OH, EXCUSE MOI? I DEMAND YOUR
ATTENTION THIS INSTANT! YOU STARTED
BLABBING ABOUT OTHER THINGS AND
DIDN'T FINISH MY PROJECT! CHOP-CHOP,
DARLING!



Miss Piggy's Communications assistant

- We'll be helping Miss Piggy out with an app for her phone, so she can easily contact everyone without too much hassle.

Communications assistant

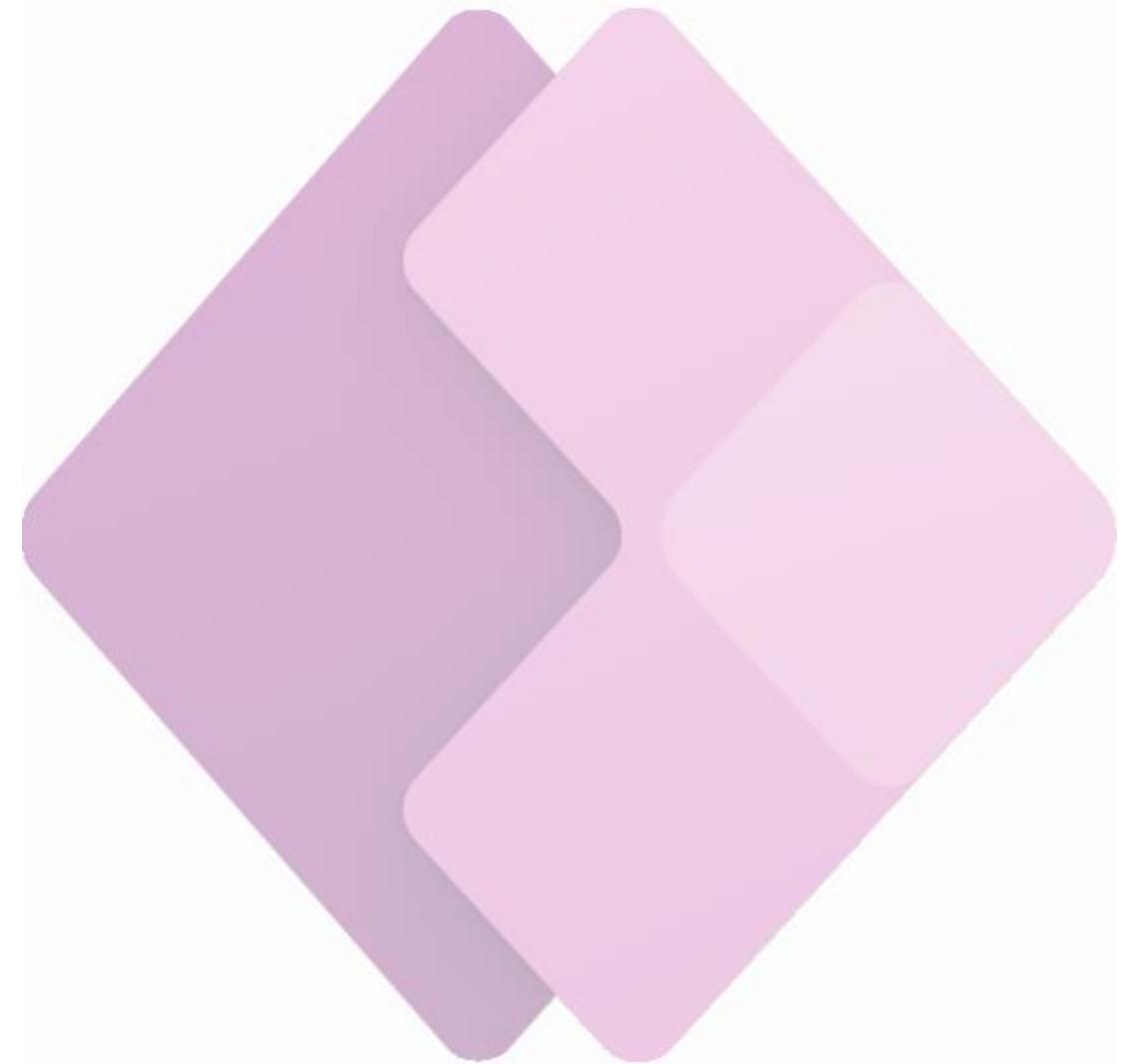
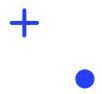
Enter text to submit to Power Automate to the entire crew

Send to entire crew





Short demo



Exercises for Power Automate - The basics



Exercise 1.3

Preparing a Canvas App (Muppets Themed)

Learning Objectives: In this exercise, you will create a Muppets-themed Canvas App with a button to start a flow.

Estimated Time: 30 min

Scenario: Miss Piggy needs a canvas app for her communications.

Create a Canvas app with a button that triggers a flow to submit all her messages out to the crew.

Power Apps

Model Driven Apps

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Business Process flows

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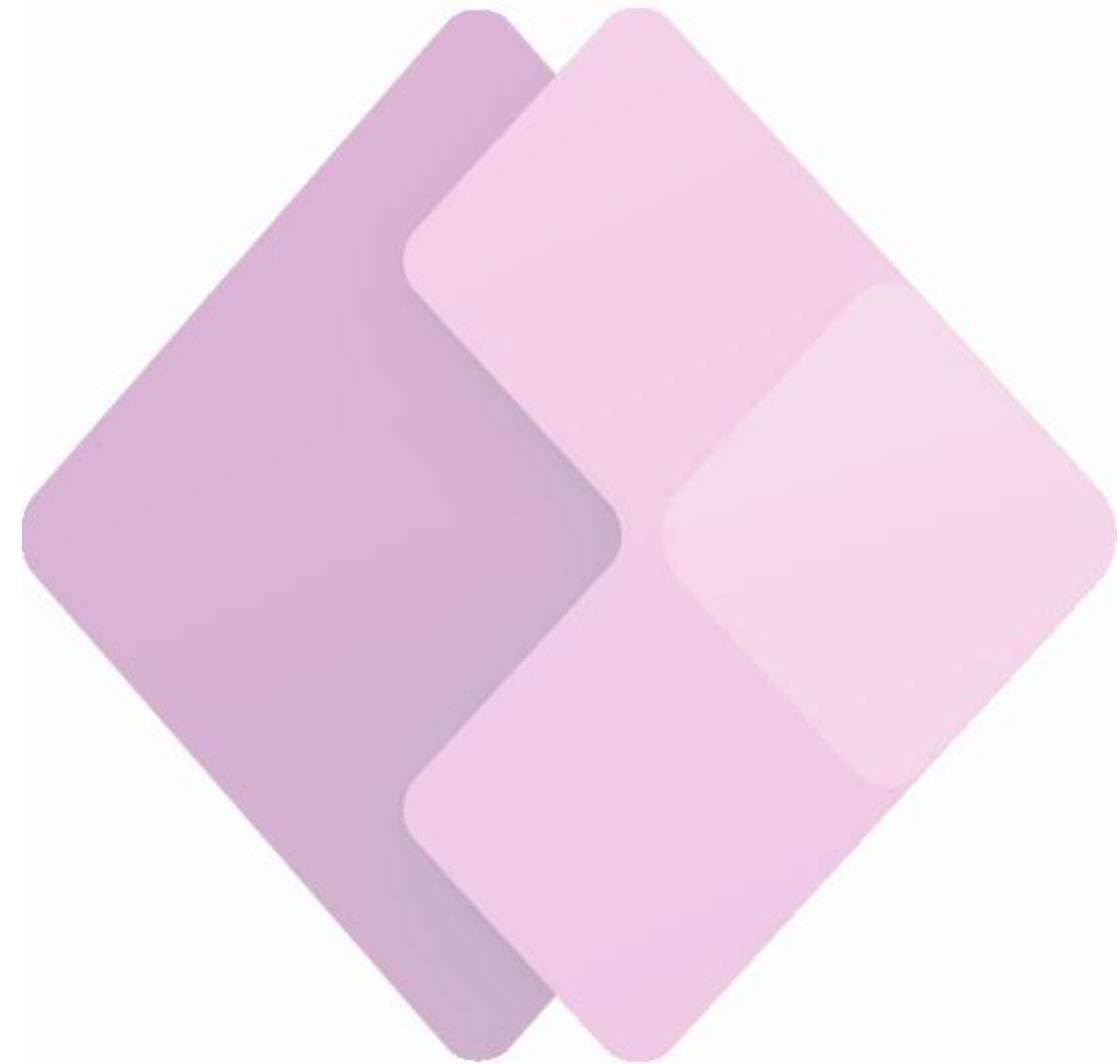
WHY WOULD WE WANT A MODEL DRIVEN APP? - SCENARIOS

- Gonzo needs to keep track of his stunts. His health insurance wishes to have an overview.
- We need a way to see the status of each episode to be aired. On a quick glance, see which staff member is assigned, whether it has aired or not and for the entire cast to check progress.
- Scooter needs to get approval for each show's script.
- Rizzo the Rat is responsible for ordering snacks for the shows.

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Short demo



Exercises for Canvas Apps and Model Driven apps

Exercise 2.1 Configuring a Basic Model-Driven App

Learning Objectives: In this exercise, you will learn how to configure a basic model-driven app. Please note that a PowerApps Premium account is required for this exercise.

Estimated Time:

Exercise 2.2 Adding a Business Process Flow to a Model-Driven App

Learning Objectives: In this exercise, you will learn how to create and integrate a business process flow into a model-driven app using Power Automate. This will help streamline your business processes and ensure consistency in how tasks are performed within your organization.

Estimated Time:

Exercises for Canvas Apps and Model Driven apps

Exercise 2.3 Adding Flow Steps to the Business Process Flow

Learning Objectives: In this exercise, you will learn how to add flow steps to a Business Process Flow (BPF). Ensure you have created at least one flow before proceeding.

Estimated Time:

Exercise 2.4 Adding a Button to Call a Flow in a Dataverse Form

Learning Objectives: In this exercise, you will learn how to add a button to a Dataverse form in a model-driven app that calls a Power Automate flow.

Estimated Time:

Bonus - Exercise 2.5 Adding a Button to Call a Flow from the Main Grid Command Bar

Learning Objectives: In this exercise, you will learn how to add a button to the ribbon in a Model-driven app that calls a Power Automate flow.

Estimated Time:

Exercises for Canvas and Model Driven apps



Exercise 2.1 Configuring a Basic Model-Driven App

Learning Objectives: In this exercise, you will learn how to configure a basic model-driven app. Please note that a PowerApps Premium account is required for this exercise.

Estimated Time:

Scenario: Gonzo needs to keep track of his stunts. His health insurance wishes to have an overview.

Create a table and Model Driven app that logs each stunt's details and calculates the total number of stunts performed each week.

Exercises for Canvas and Model Driven apps

Exercise 2.2 Adding a Business Process Flow to a Model-Driven App

Learning Objectives: In this exercise, you will learn how to create and integrate a business process flow into a model-driven app using Power Automate. This will help streamline your business processes and ensure consistency in how tasks are performed within your organization.

Estimated Time:

Scenario: We need a way to see the status of each episode to be aired. On a quick glance, see which staff member is assigned, whether it has aired or not and for the entire cast to check progress.



Exercises for Canvas Apps and Model Driven apps

Exercise 2.3 Adding Flow Steps to the Business Process Flow

Learning Objectives: In this exercise, you will learn how to add flow steps to a Business Process Flow (BPF). Ensure you have created at least one flow before proceeding.

Estimated Time:

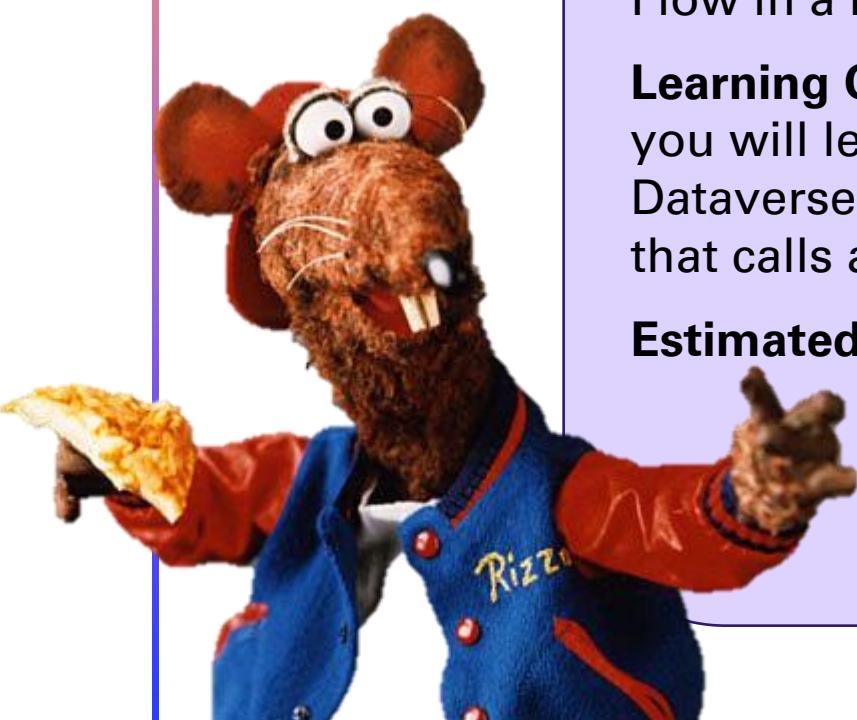
Scenario: Scooter needs to get approval for each show's script.

Create a BPF flow that sends the script to Kermit for approval and notifies Scooter once it's approved.

Staff members reviewing the shows idea needs to be able to quickly see if it's been approved or not.



Exercises for Canvas Apps and Model Driven apps



Exercise 2.4 Adding a Button to Call a Flow in a Dataverse Form

Learning Objectives: In this exercise, you will learn how to add a button to a Dataverse form in a model-driven app that calls a Power Automate flow.

Estimated Time:

Scenario: Rizzo the Rat is responsible for ordering snacks for the shows. Create a flow that automatically places orders for the show and notifies Rizzo if something goes wrong.

Exercises for Canvas Apps and Model Driven apps

Bonus Exercise 2.5 Adding a Button to Call a Flow from the Main Grid Command Bar

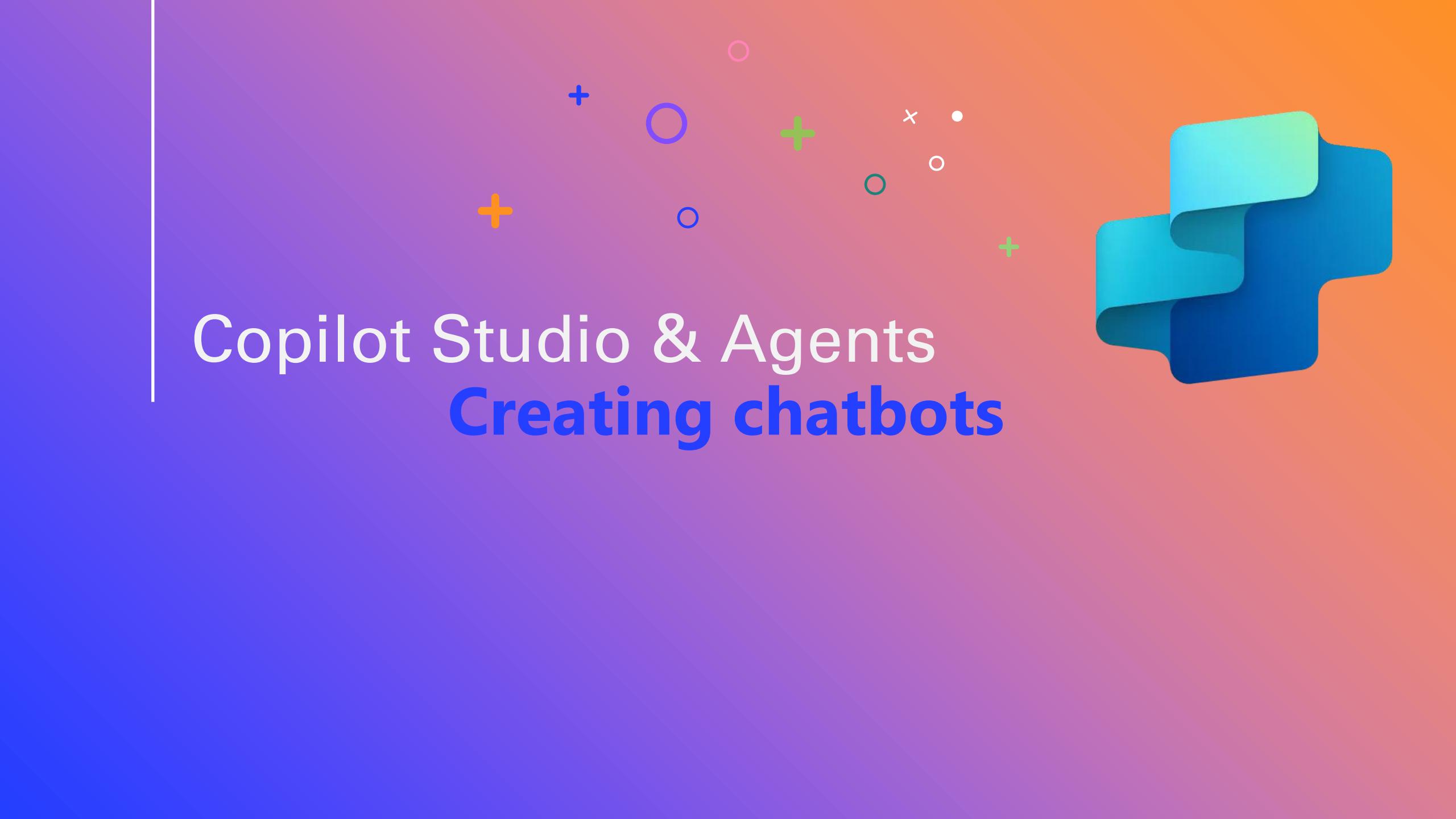
In this exercise, you will learn how to add a button to the ribbon in a Model-driven app that calls a Power Automate flow.

Estimated Time:

Scenario: The Swedish Chef is an essential part of the Muppet Show, known for his unique and entertaining cooking segments. However, coordinating his appearances has become a challenge. Often, the Chef is not informed in time when his cooking skills are required for a specific show idea, leading to last-minute rushes and unprepared segments.







Copilot Studio & Agents

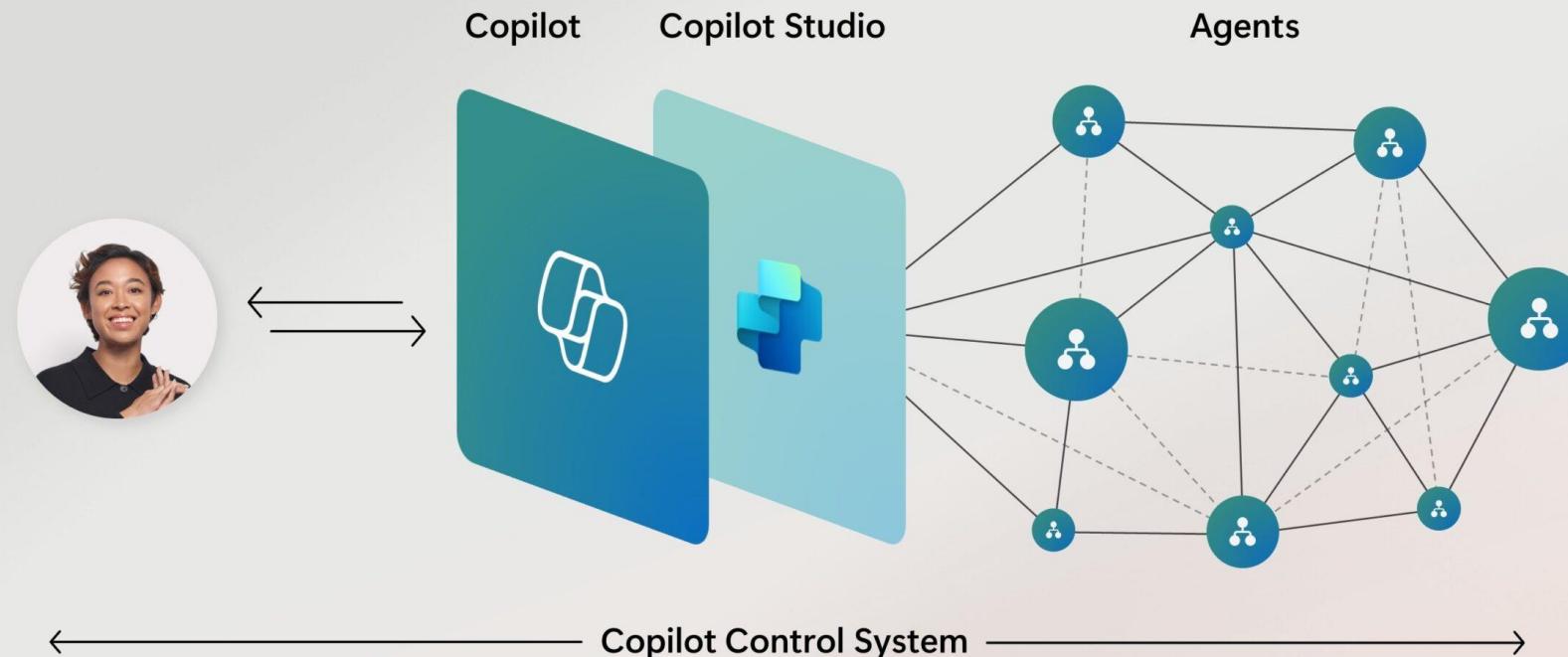
Creating chatbots



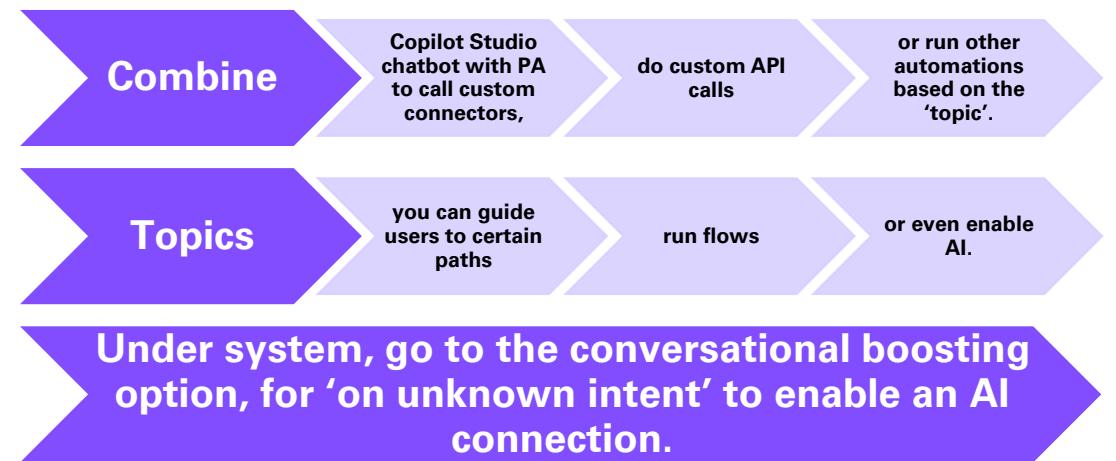
Copilot Studio

The new announcements

Copilot is the UI for AI



Copilot Studio & Power Automate



Copilot Studio & Power Automate

Very easy 2 requirements



1. The trigger:

Run a flow from Copilot

2. Ending action:

You can respond back to Copilot Studio with the Respond to Copilot action.

Copilot Studio & Power Automate



The screenshot shows the Copilot Studio interface. On the left, a 'Question' card is open, displaying the following configuration:

- Ask a question:** What is your Zipcode?
- Identify:** Number
- Save response as:** Var2 (number)

Below the card, a list of actions is shown:

- Ask a question
- Add a condition
- Call an action** (highlighted with a red border)
- Show a message
- Go to another topic
- End the conversation

To the right of the card, a sidebar titled 'Search' contains the following items:

- Authenticate**: Go to Manage > Authentication to connect an Identity...
- Create a flow**: Launches Power Automate in a new window
- Get weather forecast** (highlighted with a red border): View flow details



Copilot Studio Agents - Actions

Step 1 of 3: Choose an action

Create an action or browse through our list of actions you want to use to get information from external sources. [Learn more](#) X

Discover an action
Search for flows, skill actions, and commonly used connector actions

Search

11 actions found

[Connectors](#) [Custom Connectors](#) [Flows](#) [Skills](#) [Dataverse](#)

 Untitled
Get information about industries, solutions, services and cont...

 Run a flow built with Power Automate for desktop
Desktop flows

 Delete a row
Excel Online (Business)

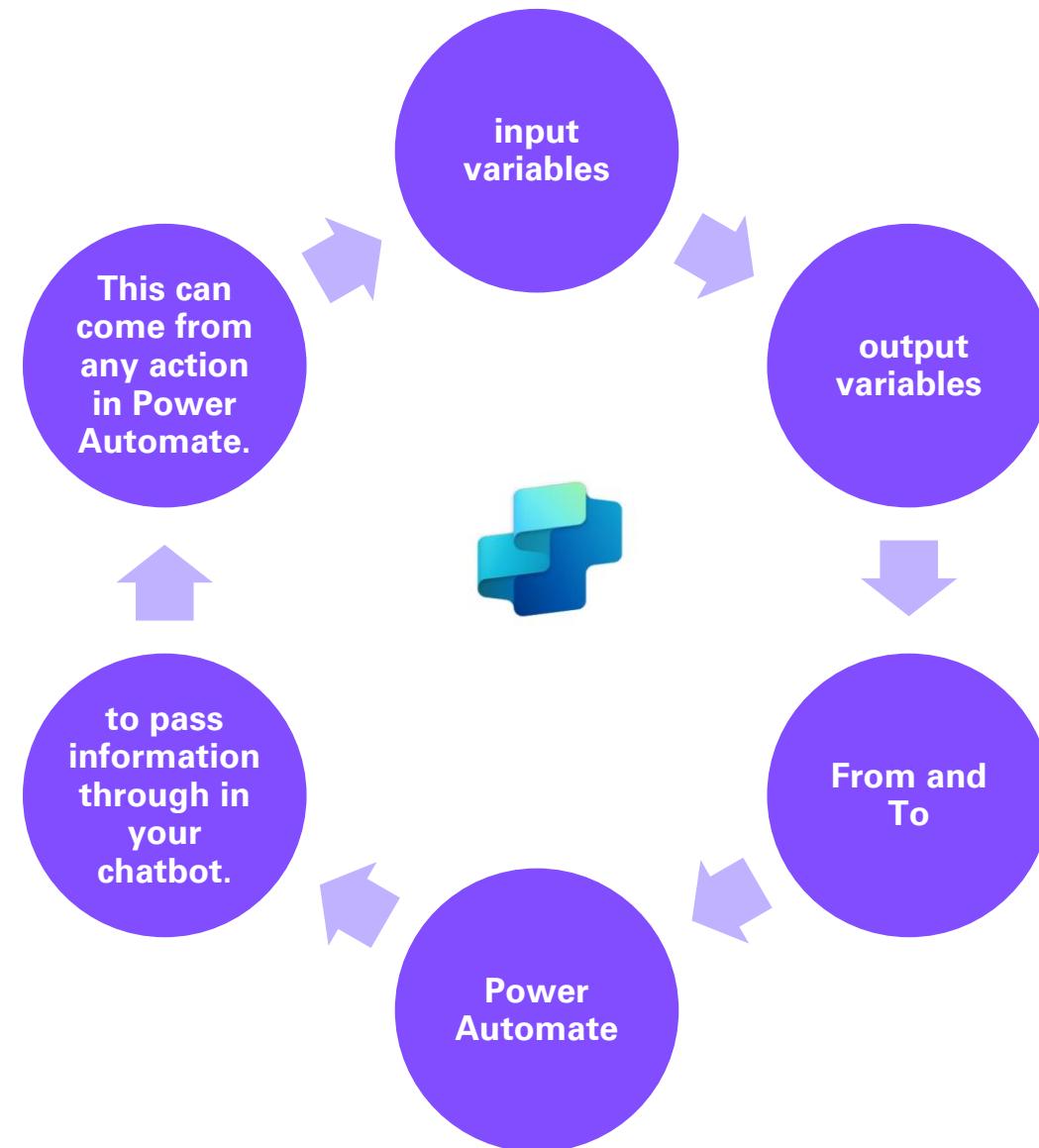
 Run script
Excel Online (Business)

 Get a row
Excel Online (Business)

 Run script from SharePoint library
Excel Online (Business)

Cancel

Copilot Studio & Power Automate



Action

Power Automate inputs (2)

- (x) City (text) gets value from Var1 (text)
- (x) Zipcode (number) gets value from Var2 (number)

Power Automate outputs (3) gives value to

- (x) day_summary (text)
- (x) location (text)
- (x) chance_of_rain (number)

Message

Today's forecast for {x} location is {x} day_summary . Chance of rain is {x} chance_of_rain .



Short demo



Exercises for Copilot Studio

Exercise 3.1 Calling a Power Automate Flow from a Bot with Copilot Studio

Learning Objectives: Learn how to call a Power Automate flow from a bot using actions and plugins in Copilot Studio.

Estimated Time:

Exercise 3.2 Parsing Input and Output from Copilot Studio through Power Automate Flows and Custom Connectors

Learning Objectives: This guide will help you understand how to parse input and output from Copilot Studio using Power Automate flows and custom connectors.

Estimated Time:

Exercises for Copilot Studio

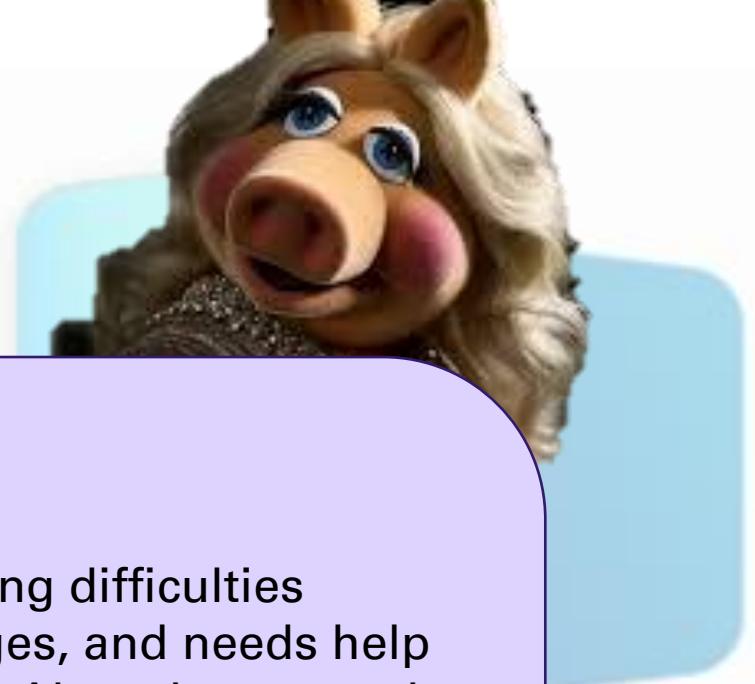
Exercise 3.1 Calling a Power Automate Flow from a Bot with Copilot Studio

Learning Objectives: Learn how to call a Power Automate flow from a bot using actions and plugins in Copilot Studio.

Estimated Time:

Scenario: Miss Piggy is having difficulties following all her fan messages, and needs help managing all the responses. Also, she cannot be bothered by the same questions over and over again, her time is far too precious!

"Moi needs a solution to manage all these fan messages," Miss Piggy sighed. "I can't possibly respond to everyone and still have time for my beauty routines and rehearsals!"



Exercises for Copilot Studio



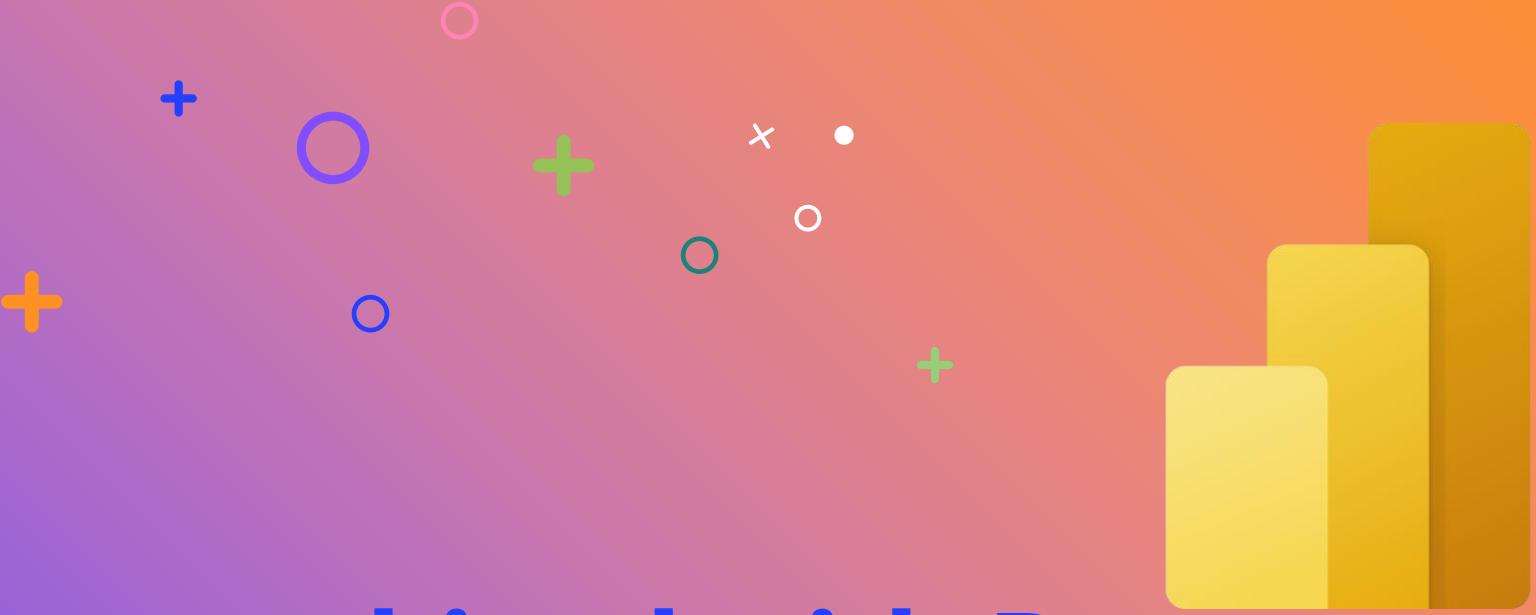
Exercise 3.2 Parsing Input and Output from Copilot Studio through Power Automate Flows and Custom Connectors

Learning Objectives: This guide will help you understand how to parse input and output from Copilot Studio using Power Automate flows and custom connectors.

Estimated Time:

Scenario: Fozzie wanted to go even further than Miss Piggy, and also connect to other systems.

First, Fozzie used Copilot Studio to create a chatbot that could greet his fans and ask them about their favorite jokes. But he wanted the chatbot to do more than just ask questions. He wanted it to understand the fans' responses and provide personalized jokes based on their preferences.

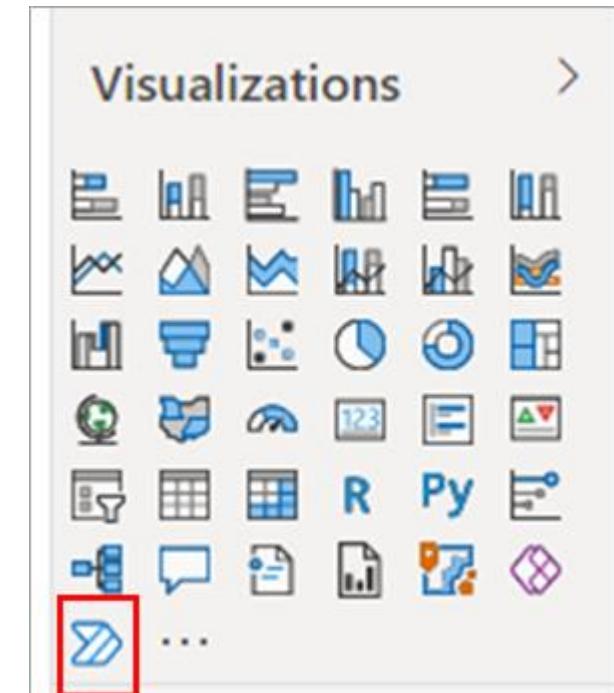


Power BI Reporting combined with Power Automate

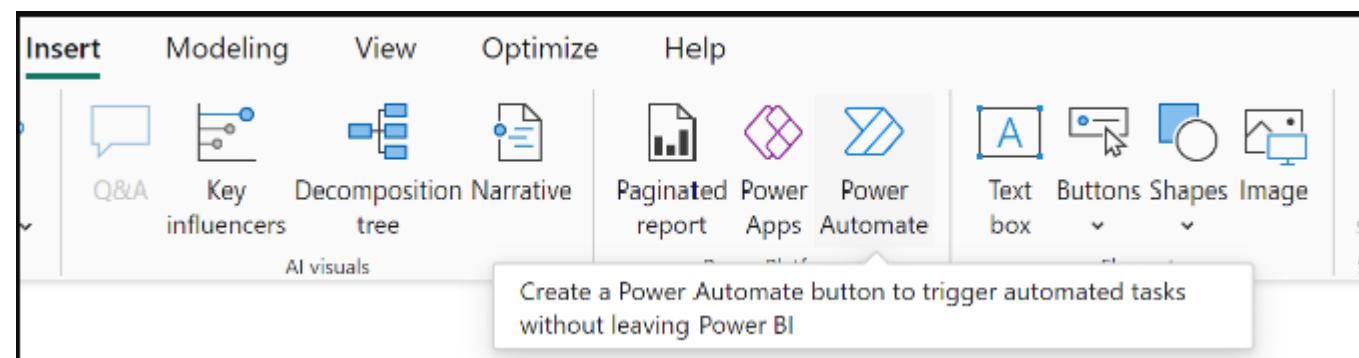
POWER BI & POWER AUTOMATE

The Power Automate visual can be found:

1. In the visualizations pane
2. Under Insert in the ribbon

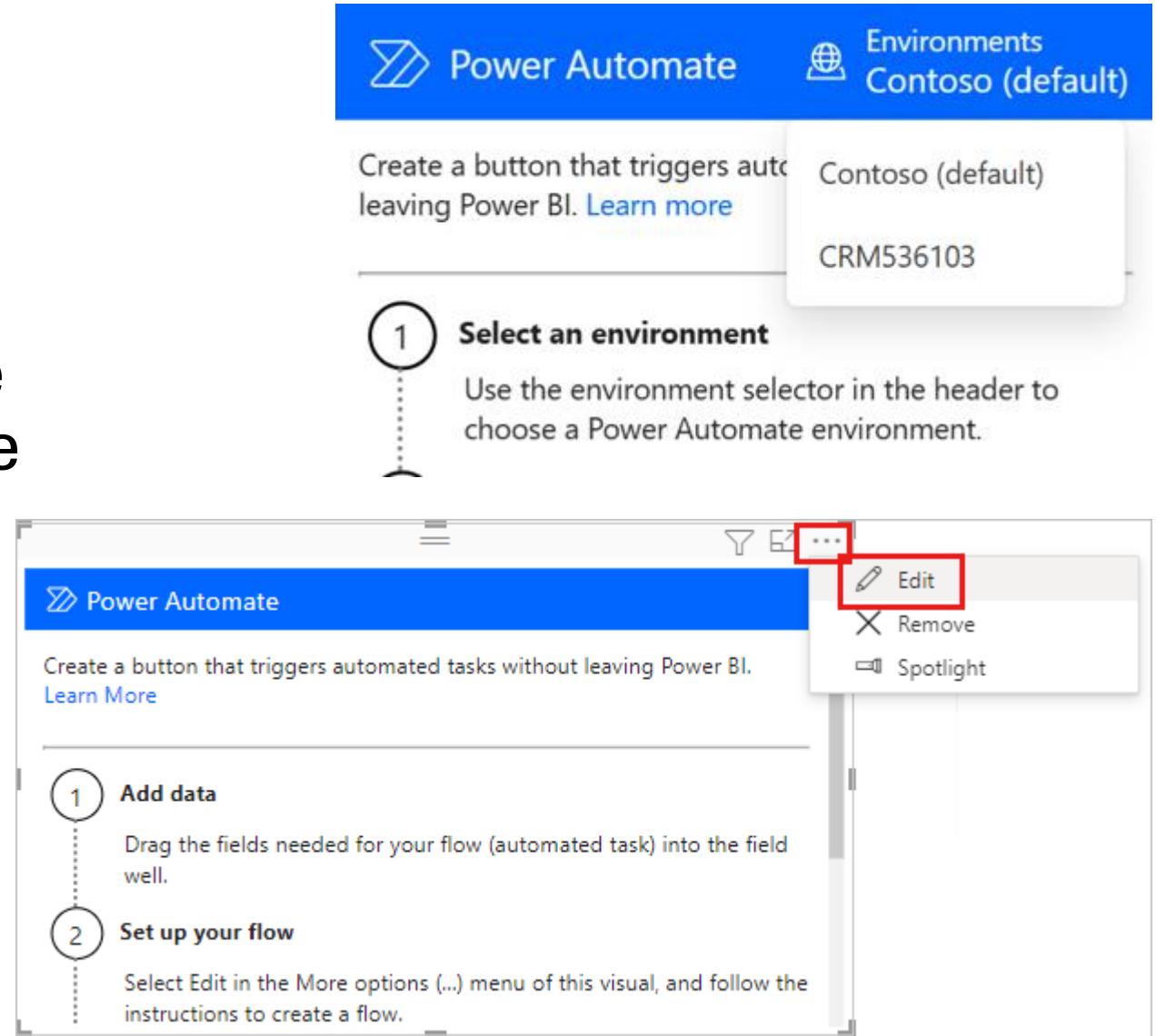


You can only select, or create, an instant flow.



POWER BI & POWER AUTOMATE

- You need to specify which environment your flow is in, or if you create a new one, is meant to be in.
- Then press edit, to select an existing flow, or create a new one.



POWER BI & POWER AUTOMATE

▶ Run flow

- Automate Data Refresh: You can create a Power Automate flow to refresh your Power BI datasets automatically.
- Power Automate can be used to send email alerts or notifications.
- You can add Power Automate buttons directly into your Power BI reports. These buttons allow users to trigger automated workflows directly from the report.
For example, a button could be used to export report data to a PDF or send a summary email

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Short demo



Exercises for PowerBI

Exercise 4.1 Refreshing a Power BI Dataset with Power Automate

Learning Objectives: Learn how to add a button in Power BI that triggers a Power Automate flow to refresh a dataset.

Estimated Time:

Exercise 4.2 Bonus Exercise: Creating a Canvas App for Power BI Integration

Learning Objectives: In this exercise, you will create a Muppet-themed Canvas App that can be embedded into Power BI, uses the Power BI integration data connection, and is able to call a flow.

Estimated Time:







Still awake?

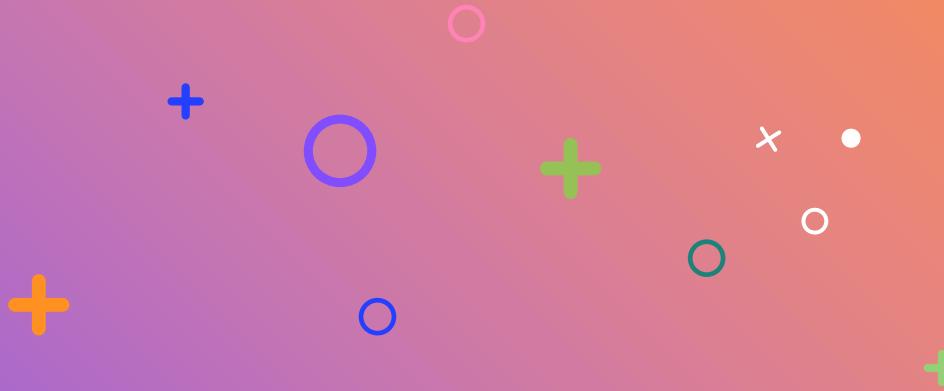


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Power Pages

External facing websites



POWER PAGES & POWER AUTOMATE

- It is possible to invoke a Power Automate flow from both the pages and forms within Power Pages.
- Trigger flows to validate data, send notifications, and update databases from forms.
- Enhance productivity, accuracy, and user experience by automating manual processes.

POWER PAGES & POWER AUTOMATE

Our scenario:

Kermit has a weather show, and needs help when submitting new requests, to check what the current temperature is in a certain location.

123

SESAME STREET.

SUN MON TUES WED THUR FRI SAT



70's

OLD SCHOOL

Exercises for Power Pages

Exercise 5.1 Bonus
Exercise: Integrate Cloud Flow with Power Pages (Muppets Theme)

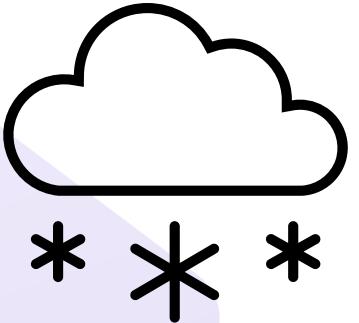
Learning Objectives: In this bonus exercise, you will integrate a cloud flow with your Power Pages site.

Estimated Time:

Exercise 5.2 Adding a Dataverse Table to Power Pages

Learning Objectives: In this exercise, you will add a Dataverse table to Power Pages and create a multi-step form. Ensure the flow from Exercise 5.1 remains connected.

Estimated Time:



COMBINING THEM ALL - SOLUTIONS



WHY USE SOLUTIONS?



Everything is in one clear place



Developing something can easily rank up the numbers for amount of components, and it's easier to keep track of.



You can move the entire solution from Dev to Test to Prod, supporting ALM within your environment



If you have Pipelines, you can easily move the entire solution.

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Exercise to combine them all

Exercise 6 Combining All Elements into a Single Solution

Learning Objectives: In this exercise, we will combine all the elements from the previous exercises into a single cohesive solution. This solution will demonstrate how the Power Platform components can work together seamlessly.

"Hi-ho! We can sell the
solution for 1 billion dollars!
Yay!"



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BONUS - DEMO

POWER PAGES TO CALL A FLOW THROUGH A DATAVERSE FORM

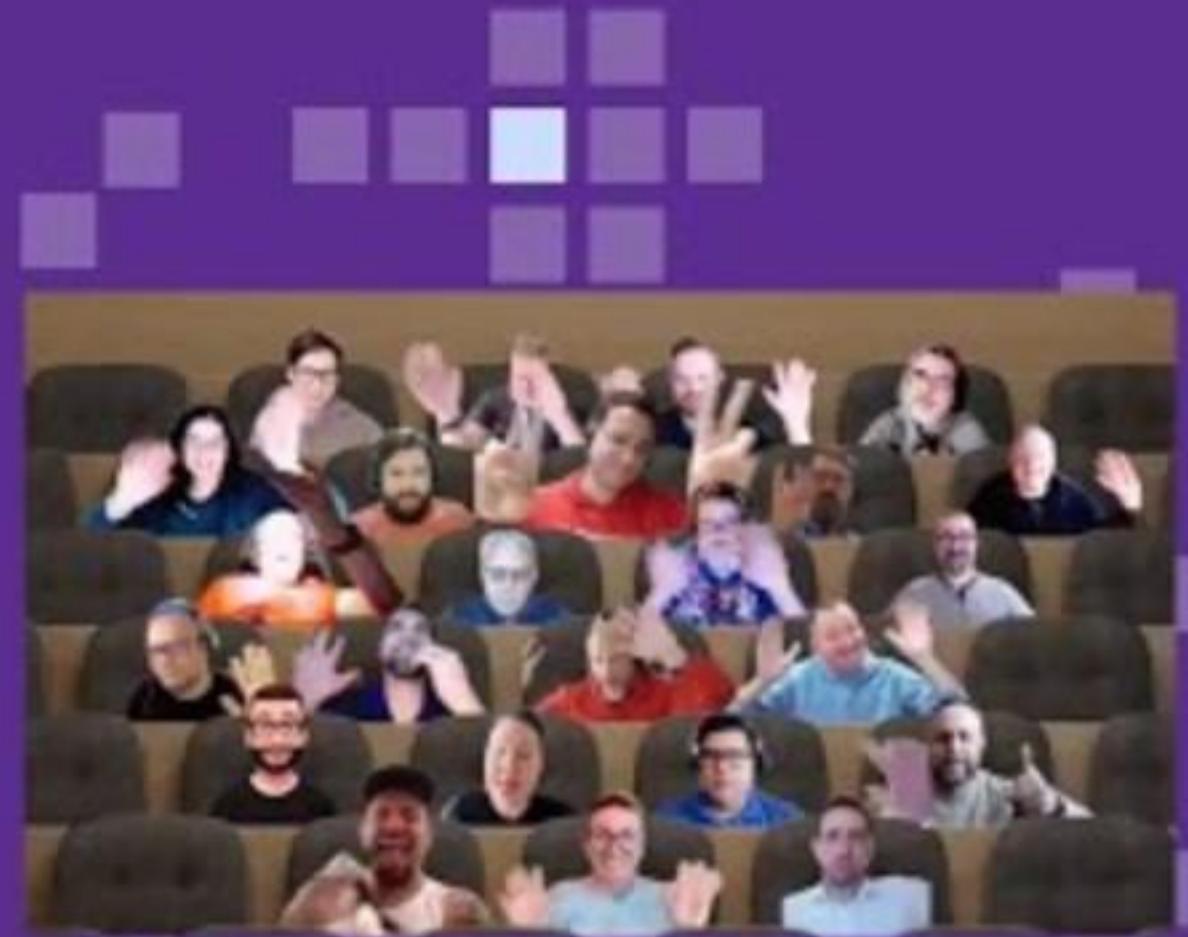
A LITTLE STORY AND DEMO





Microsoft Power Platform Community call

20th of November 2024





NOW IT'S YOUR TURN

Bonus exercise for Power Pages

Level - Difficult

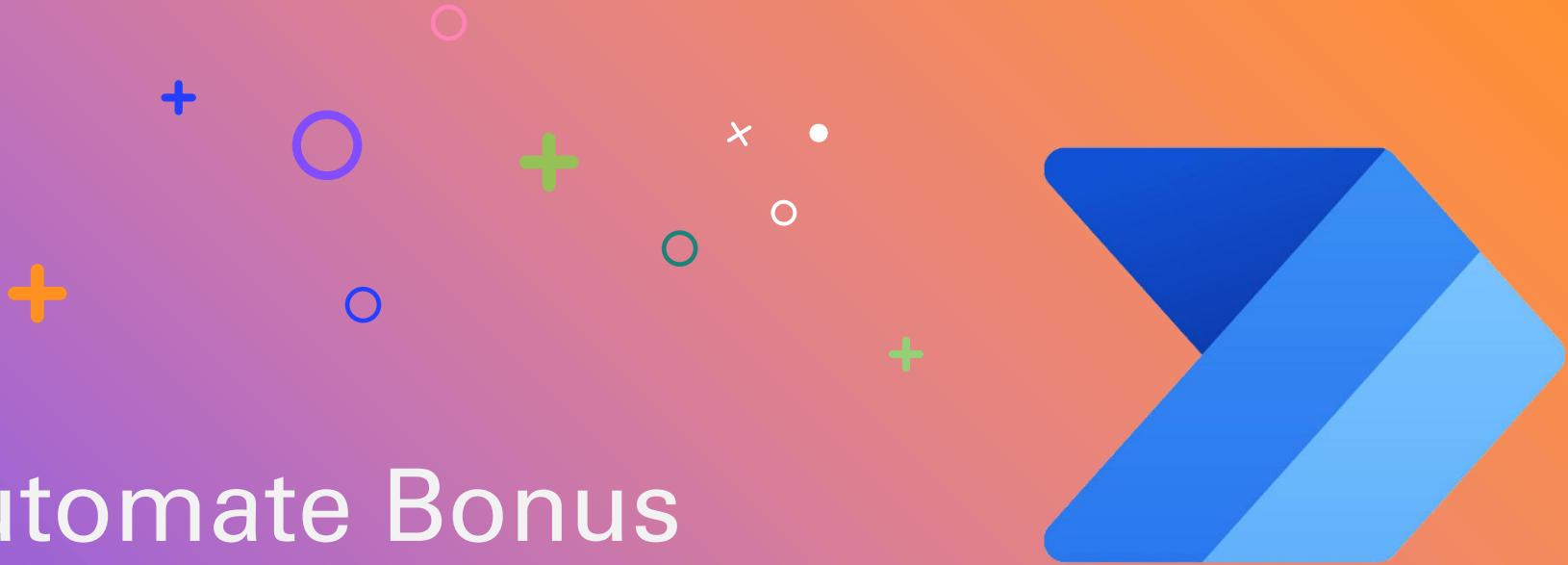
Exercise 5.3 Bonus Exercise: Calling a Power Automate Flow from a Dataverse Form in a Power Page Form

Learning Objectives: Call information from another data source, using power automate, and input the values back into the form



Power Automate Bonus

Desktop flows (RPA)



RPA FLOWS



Integration with legacy systems: For interaction with systems that do not offer APIs.



Connecting cloud and desktop: If you have processes that require both cloud-based and desktop-based actions, desktop flows can combine these into one seamless workflow.

RPA FLOWS



Running in unattended mode: For tasks that need to be performed without human intervention, for example outside working hours, desktop flows can run in unattended mode.



Recording manual tasks: You can record manual tasks and convert them into an automated flow, which is useful for complex tasks that are difficult to program manually.

Business scenario's
Let's discuss



Bonus - Exercises for RPA And Cloud Flows

Part 1: Call a Cloud Flow from a Desktop Flow

Learning Objectives: Learn how to call a Power Automate cloud flow from a desktop flow and vice versa.

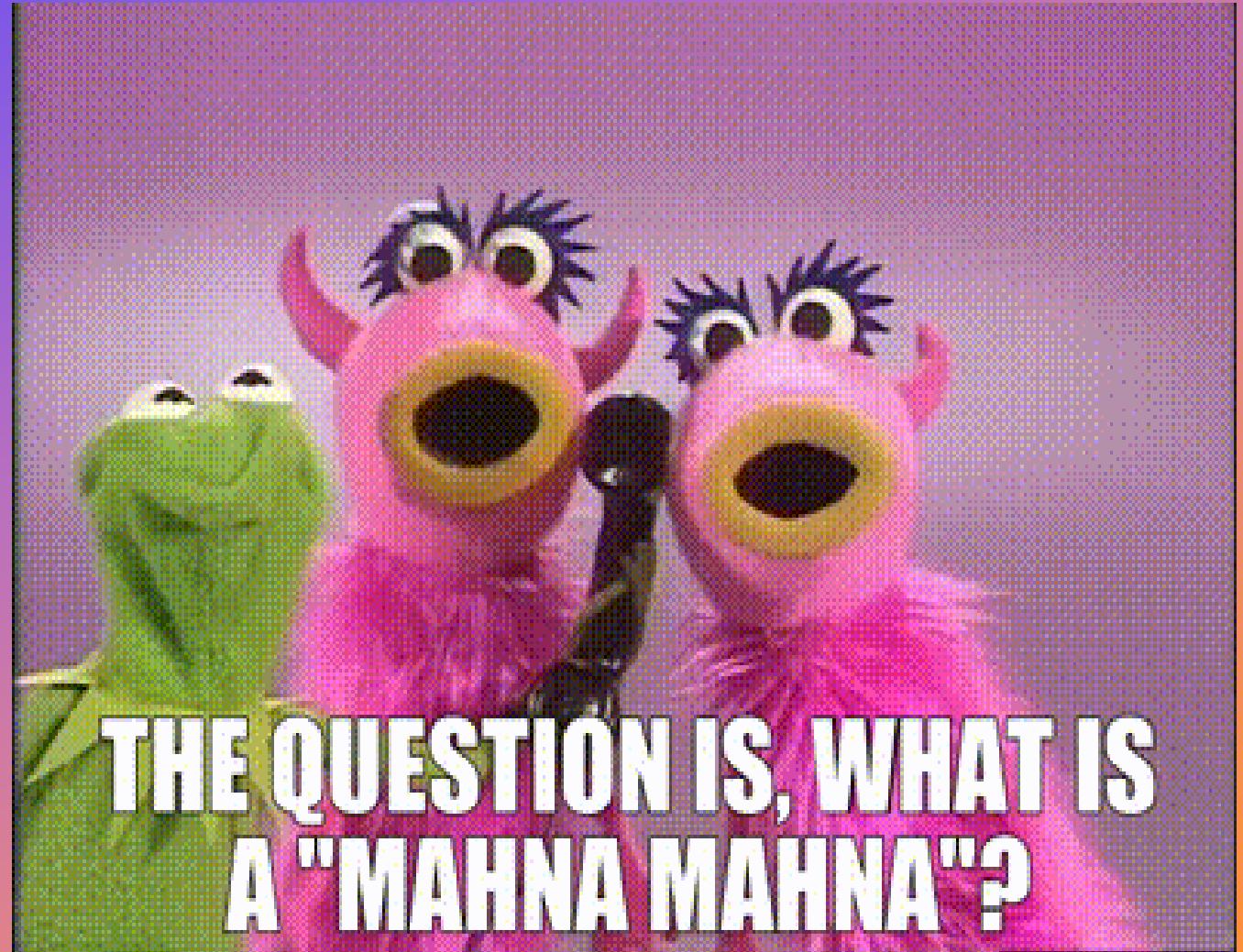
Estimated Time:

Part 2: Call a Desktop Flow from a Cloud Flow

Learning Objectives: Learn how to call a Power Automate cloud flow from a desktop flow and vice versa.

Estimated Time:

QUESTIONS?



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THANK YOU

Nathalie Leenders & Hugo Bernier

